

United States Department of the Interior  
National Park Service

National Register of Historic Places  
Registration Form

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in How to Complete the National Register of Historic Places Registration Form (National Register Bulletin 16A). Complete each item by marking "x" in the appropriate box or by entering the information requested. If an item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions. Place additional entries and narrative items on continuation sheets (NPS Form 10-900a). Use a typewriter, word processor, or computer, to complete all items.

1. Name of Property

historic name West Washington Street Bridge  
other names/site number Meeks Avenue Bridge, Delaware County Bridge #503

2. Location

West Washington Street over the west fork of the White River  
street & number N/A ☐ not for publication  
city or town Muncie N/A ☐ vicinity  
state Indiana code IN county Delaware code 035 zip code 47303

3. State/Federal Agency Certification

As the designated authority under the National Historic Preservation Act, as amended, I hereby certify that this ☒ nomination  
☐ request for determination of eligibility meets the documentation standards for registering properties in the National Register of  
Historic Places and meets the procedural and professional requirements set forth in 36CFR Part 60. In my opinion, the property  
☒ meets ☐ does not meet the National Register criteria. I recommend that this property be considered significant  
☐ nationally ☐ statewide ☒ locally. ( ☐ See continuation sheet for additional comments.)

Signature of certifying official/Title

Date

Indiana Department of Natural Resources

State or Federal agency and bureau

In my opinion, the property ☐ meets ☐ does not meet the National Register criteria. ( ☐ See continuation sheet for additional comments.)

Signature of certifying official/Title

Date

State or Federal agency and bureau

4. National Park Service Certification

I hereby certify that the property is:

- ☐ entered in the National Register.  
☐ See continuation sheet.

- ☐ determined eligible for the  
National Register  
☐ See continuation sheet.

- ☐ determined not eligible for the  
National Register

- ☐ removed from the National Register

- ☐ other, (explain:) \_\_\_\_\_

Signature of the Keeper

Date of Action

West Washington Street Bridge  
Name of Property

Delaware IN  
County and State

### 5. Classification

**Ownership of Property**  
(Check as many boxes as apply)

- ☐ private  
☒ public-local  
☐ public-State  
☐ public-Federal

**Category of Property**  
(Check only one box)

- ☐ building  
☐ district  
☐ site  
☒ structure  
☐ object

**Number of Resources within Property**  
(Do not include previously listed resources in the count)

Contributing	Noncontributing	
0	0	buildings
0	0	sites
1	0	structures
0	0	objects
1	0	Total

**Name of related multiple property listing**

(Enter "N/A" if property is not part of a multiple property listing.)

N/A

**Number of contributing resources previously listed  
in the National Register**

0

### 6. Function or Use

**Historic Functions**

(Enter categories from instructions)

TRANSPORTATION: Road-Related

**Current Functions**

(Enter categories from instructions)

TRANSPORTATION: Road-Related (vehicular)

### 7. Description

**Architectural Classification**

(Enter categories from instructions)

OTHER: Concrete Arch

**Materials**

(Enter categories from instructions)

foundation CONCRETE

walls CONCRETE

roof

other

**Narrative Description**

(Describe the historic and current condition of the property on one or more continuation sheets.)

**8. Statement of Significance****Applicable National Register Criteria**

(Mark "x" in one or more boxes for the criteria qualifying the property for National Register listing.)

- ☒ **A** Property is associated with events that have made a significant contribution to the broad patterns of our history.
- ☐ **B** Property is associated with the lives of persons significant in our past.
- ☒ **C** Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- ☐ **D** Property has yielded, or is likely to yield, information important in prehistory or history.

**Criteria Considerations**

(Mark "x" in all the boxes that apply.)

Property is:

- ☐ **A** owned by a religious institution or used for religious purposes.
- ☐ **B** removed from its original location.
- ☐ **C** a birthplace or grave.
- ☐ **D** a cemetery.
- ☐ **E** a reconstructed building, object, or structure.
- ☐ **F** a commemorative property.
- ☐ **G** less than 50 years of age or achieved significance within the past 50 years.

**Narrative Statement of Significance**

(Explain the significance of the property on one or more continuation sheets.)

**9. Major Bibliographic References****Bibliography**

(Cite the books, articles, and other sources used in preparing this form on one or more continuation sheets.)

Previous documentation on file (NPS):

- ☐ preliminary determination of individual listing (36 CFR 67) has been requested
- ☐ previously listed in the National Register
- ☐ previously determined eligible by the National Register
- ☐ designated a National Historic Landmark
- ☐ recorded by Historic American Buildings Survey # \_\_\_\_\_
- ☐ recorded by Historic American Engineering Record # \_\_\_\_\_

**Areas of Significance**

(Enter categories from instructions)

ENGINEERING

TRANSPORTATION

**Period of Significance**

1930-1957

**Significant Dates**

N/A

**Significant Person**

(Complete if Criterion B is marked above)

N/A

**Cultural Affiliation**

N/A

**Architect/Builder**

Burk Construction Company, New Castle, IN

Armintrout, Charles M. (county engineer)

West Washington Street Bridge  
Name of Property

Delaware IN  
County and State

## 10. Geographical Data

Acreage of Property Less than 1 acre

UTM References (Place additional UTM references on a continuation sheet.)

1 16 636920 4450430  
Zone Easting Northing

2

3

4

☐ See continuation sheet

## Verbal Boundary Description

(Describe the boundaries of the property on a continuation sheet.)

## Boundary Justification

(Explain why the boundaries were selected on a continuation sheet.)

## 11. Form Prepared By

name/title Chad Slider, Graduate Assistant  
organization Ball State Center for Historic Preservation date 05-01-2007  
street & number 650 W. Minnetrista Blvd. telephone 765/ 213-3540  
city or town Muncie state IN zip code 47303

## Additional Documentation

Submit the following items with the completed form:

### Continuation Sheets

#### Maps

A **USGS map** (7.5 or 15 minute series) indicating the property's location.

A **Sketch map** for historic districts and properties having large acreage or numerous resources.

#### Photographs

Representative **black and white** photographs of the property.

#### Additional items

(Check with the SHPO or FPO for any additional items)

## Property Owner

(Complete this item at the request of SHPO or FPO.)

name Delaware County Commissioners  
street & number 100 W. Main St. telephone 765/ 747-7730  
city or town Muncie state IN zip code 47305

**Paperwork Reduction Act Statement:** This information is being collected for applications to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C. 470 *et seq.*).

**Estimated Burden Statement:** Public reporting burden for this form is estimated to average 18.1 hours per response including time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding this burden estimate or any aspect of this form to the Chief, Administrative Services Division, National Park Service, P.O. Box 37127, Washington, DC 20013-7127; and the Office of Management and Budget, Paperwork Reductions Projects (1024-0018), Washington, DC 20503.

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**Section 7 – Description**

The West Washington Street Bridge is located in Delaware County, on the northwest side of downtown Muncie, Indiana. Delaware County's Bridge # 503, alternately known as the West Washington Street Bridge, or the Meeks Avenue Bridge, spans the west fork of the White River and connects Washington Street, southeast of the river, with Meeks Avenue on the northwest. The bridge is oriented southeast to northwest. It forms an important link between Muncie's downtown and the western portion of the city.

The bridge is a reinforced concrete, filled-spandrel arch structure with four elliptical arch spans. The two outer spans each measure 66 feet in length, and the two inner spans are each 65 feet in length. The width of the bridge is 42 feet, 8 inches, providing a 31-foot roadway with 4 feet, four-inch sidewalks on each side, and 1 foot, six-inch concrete railings.<sup>1</sup> The length of the bridge is approximately 281 feet long, exclusive of the wing walls of the approaches. The West Washington Street Bridge is skewed 67 degrees (Photographs 1 and 2).<sup>2</sup>

The West Washington Street Bridge was designed by Delaware County Engineer, Charles Armintrout. Armintrout had the steel reinforcing of the arch rings of the bridge extend deep into the bridge's piers and abutments. This process of integrating all of the bridge's elements allowed the piers to be substantially thinner by converting most of the arch's lateral thrust into vertical thrust. In addition, the two tiers of rod that constitute the reinforcing system of the arch rings and support each span were tied together with stirrups and placed toward the top and bottom of the arches, an Edwin Thacher-design feature (Photograph 3 from original plans).<sup>3</sup>

The spans of the bridge are supported by two abutments and three concrete piers. The piers extend horizontally (six feet upstream and downstream) from the vertical plane of the bridge deck edge. The projecting ends of the piers have a rounded profile. The central pier is placed mid-stream and the other two flank it. The footings for the piers are approximately 16 feet wide and 5 feet deep. Above its base, the profile steps back 2 feet on each side, forming a 12 foot base that rises an additional 2 feet, where the columnar section of the pier rests. The pier is 8 feet wide at its base, tapering to 7 feet in width, as it

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<sup>1</sup> Jerry D. Ritchie, *Delaware County Indiana Bridge Plans for Delaware County Bridge No. 503*, (Indianapolis: United Consulting Engineers & Architects, April 1996), 4.

<sup>2</sup> Charles M. Armintrout, *West Washington Street Bridge Over White River, Muncie, Indiana*, Muncie, Ind.: Delaware County Engineer, March 16, 1927 (blueprints).

<sup>3</sup> James L. Cooper, *Artistry and Ingenuity in Artificial Stone: Indiana's Concrete Bridges, 1900-1942* (Greencastle, IN: De Pauw University, 1997), 40.

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rises 7 feet to intersect with the spandrels. At the springing of the arch rings, the piers carry a projecting band or coping, that accentuates the transition between the sides of the pier, the pilaster extending upward from the top of the pier, the spandrels, and the haunch of the arch ring (Photographs 4, 5, and 6). Besides breaking up the monotony of the spandrel surfaces, the pilasters also serve to mask the expansion joints above the piers and abutments.

The flat spandrel walls are framed by pilasters above each pier, and by moldings at the top and bottom of the spandrel walls, creating a recessed appearance. The upper cornice is flat-faced with a coved detail below. The lower edge of the spandrel is defined by the outline of the arch ring as it increases from a narrow width at the crown to its flare silhouette at the haunch where it meets the pilaster. (Photographs 7 and 8).

The railings are approximately 3 feet high and 1 foot wide. The sections immediately above the pilasters are slightly wider and taller than the remainder of the railing to accentuate the location of the light standards (Photographs 9, 10, and 11). The ten original standards were replaced with contemporary fixtures in the late 1940s.<sup>4</sup> The lights currently in place were added during the restoration of the bridge in 1996, and were designed to emulate the ones shown in the original plans.

By varying the depth and texture of the railing components, the railing acquires a three-dimensional visual image that softens the monolithic reality of the actual bridge component. The monotony of the railing's solid concrete surface is relieved by a series of horizontal, recessed panels that impart depth and accompanying shadow lines. The coping on top of the railing has beveled edges and is slightly wider than the railing below. The overall effect is further emphasized by using texture. The panels are "bush-hammered" to expose the aggregate which contrasts markedly with its smooth concrete surround. This technique adds visual interest with the play of light during different times of day and season. Often, the contrasting texture makes the panels appear darker than the smooth surfaces of the bridge (Photographs 12 and 13).

There are three plaques imbedded into the walls of the bridge railing. One is located on the inner surface of the eastern end of the north railing near the wing wall. It lists the Delaware County Commissioners, the County Auditor, the original construction company, and the restoration contractor. Another plaque, located on the interior surface of the east end of the south railing lists the names of the Delaware County Council. Finally, a plaque attached to the wing wall on the southwest end of the bridge commends the county for its work in restoring the bridge in 1996 (Photographs 14, 15, and 16).

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<sup>4</sup> Bill Spurgeon, "Our Neighborhood," *The Star Press*, 15 January 1996, p. 4A.

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The railings flare out over the wing walls at the bridge entrances. (Photograph 17). This was a common practice and was found to be a method of preventing collisions. Frequently, state engineers used flared railings that extended the approaches and exits of the bridge railings beyond the actual length of the bridge in to funnel traffic onto and off of bridges.<sup>5</sup>

The bridge maintains its integrity of design. Where required as part of the restoration process, portions of the spandrels and railings were replicated. Application of some new reinforcing steel and concrete constituted repairs to the outer surfaces of the arch rings. The deteriorated pier bases were restored by removing disintegrated and unstable concrete and reinforcing as needed to match the original design. The deteriorated noses and coping on the piers were also restored. Original drain pipes that extended from the roadway into the piers were filled with concrete and the outlets in the pier walls were removed and patched. New 3-inch PVC drain pipes were added in the soffits, just above the springing of the arches. New fill material was used and the driving surface was replaced. Additional riprap was placed at the base of the piers.<sup>6</sup>

While the aesthetics of the bridge received restorative attention, the basic construction and interior design of its structural components remain as they were when the builders declared the work accomplished in 1930. This includes the footings, piers, and, most importantly, the skewed reinforced concrete arches that are so basic to the design. The county engineer, Charles Armintrout, and Edwin Thacher, would both recognize the results of their professional labors

The West Washington Street Bridge is in good condition and its current appearance nearly mirrors the original image. The original 1927 blueprints and the 1996 restoration plans for the bridge are located at the office of the Delaware County Engineer.

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<sup>5</sup> Cooper, *Artistry and Ingenuity*, 145.

<sup>6</sup> 1996 restoration plans.

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**Section 8 – Statement of Significance**

The West Washington Street Bridge is eligible for the National Register of Historic Places under Criterion A for its association with events that have made a significant contribution to the broad patterns of our history, in this case, the development of transportation infrastructure between Muncie and several communities west of Muncie proper that eventually became Greater Muncie. The bridge is eligible under Criterion C as a representative example of an early twentieth-century, reinforced-concrete, filled spandrel bridge that demonstrates construction techniques associated with the work of Edwin Thacher, a nationally-known bridge designer of the period. The period of significance is 1930 to 1957.

By the early twentieth century, the borders of Muncie expanded as suburban districts adjacent to Muncie were annexed. Normal City and Riverside, west and northwest of the original town limits of Muncie, had become an important part of Muncie by the late 1920s. Residential development associated with Ball State Teachers College, and the new Ball General Hospital filled the lots laid out in the 1890s for Normal City and Riverside. Formerly, streetcars linked these two suburbs with Muncie across the White River. When that service was discontinued about 1930, automobiles became the chief form of transportation within the city and its surrounding neighborhoods.

The Washington Street Bridge immediately became important to the community as a principal artery connecting the downtown to the residential neighborhoods of Normal City, Riverside, and Westwood, as well as to the college and Muncie's only hospital. Its importance to the community is highlighted by an article in *The Muncie Morning Star*:

Traffic conditions over the Washington Street-Meeks Avenue Bridge have been on the increase since the development of Riverside and Normal City, especially due to the progress of Ball Teachers College. The building, too, of the new million dollar hospital, a gift to the Muncie community by the Ball families, adds another direct need for improvement of the traffic conditions. The hospital will be ready for occupancy some time within the coming twelve months, when the route over the bridge and out University Avenue will be one of the most logical for ambulances and for physicians' and surgeons' cars in reaching the hospital.<sup>1</sup>

The earliest bridges located in the vicinity of the West Washington Street Bridge were located at Walnut Street, Wheeling/High Street, and Jackson Street. Collectively,

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<sup>1</sup> "Bridge Project Passes Council, *The Muncie Morning Star*, 1 Dec 1927, p. 9.



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they carried the named streets north, northwest and west over the White River from the city center. The West Washington Street Bridge is located between the Wheeling/ High Street Bridge and the Jackson Street Bridge. The first bridge crossing the White River at this site was located approximately fifty feet south of the current concrete bridge. It was likely constructed by the Indiana Bridge Company in the late-nineteenth century. Known as the Meeks Avenue Bridge, it was an 18 feet wide metal truss structure.<sup>2</sup>

Apparently deteriorated by the late 1920s, the original metal truss bridge was considered unsafe for the vehicular traffic it was serving. The County Commissioner's Records state on February 12, 1927, "After inspection of the bridge it was agreed to have Charles Armintrout, County Surveyor, prepare plans and specifications for a cement bridge to replace the present bridge."<sup>3</sup> On April 5, 1927, the Board approved the plans prepared by the surveyor.<sup>4</sup> On November 16, 1927, the Board instructed the auditor to call a special session of the county council to allocate funds for constructing a new bridge. Referring to the old bridge, the official record states, "Board of Commissioners ... have found that said Bridge is in a dangerous condition for traffic ... and being duly advised as to all the facts, find that a necessity and an emergency exists for the construction of a Cement Bridge across White River at the west end of Washington Street..."<sup>5</sup> The commission's statement likely refers to both the condition and design of the bridge which was only eighteen feet wide. The *Muncie Morning Star* stated, "The present bridge...has been the scene of several accidents recently. Plans for the new one would eliminate this [dangerous condition]. The bridge would be well lighted by ten ornamental electric lamps-five on each side. It would be built slightly to the northeast of the present bridge and would be higher than the one now in use, angling across the river from a point near Cherry Street to Meeks Avenue."<sup>6</sup>

The county council held a special meeting on June 28, 1927, "...for the purpose of authorizing the construction of a cement bridge across White River at the west end of Washington Street in the City of Muncie, Indiana, known as Washington Street Bridge and estimated to cost ninety-five thousand dollars..."<sup>7</sup> On November 29, 1927, the

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<sup>2</sup> E. J. Fabyan, *The Bridges of Muncie: A Historic and Social Reappraisal*. Term paper for History 600. Fall 1979, 18.

<sup>3</sup> *Commissioner's Record 36*, Jan 1924 - 1931, Delaware County Auditor's Office, Delaware County Building, Muncie, Indiana, 282.

<sup>4</sup> *Ibid*, 285.

<sup>5</sup> *Ibid*, 323-5.

<sup>6</sup> "Bridge Plans Approved By City Council," *The Muncie Morning Star*, 5 April 1927.

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council agreed with the county commissioners, and subsequently approved a bond issue for construction of a new bridge.<sup>8</sup>

The community supported the construction of a new bridge. Referring to the special session of the Delaware County Council on November 29, 1927, *The Muncie Morning Star* reported, "Contrary to expectations there were but few Muncie taxpayers to present their personal views on the question of the need of the bridge. Those present argued that the present bridge is dangerous and should be replaced with a wider bridge. Increased automobile traffic has rendered the [metal] bridge inadequate."<sup>9</sup> The newspaper article noted that the new bridge would support "...the widening of the river to the extent of thirty feet, in harmony with plans understood to be under consideration by the city planning commission." It also noted that "any contractor offering bids ...has the right under the law, to present different plans which could be adopted by the commissioners in lieu of those now ready."<sup>10</sup>

As immediate as the need for quick action appeared, the process took nearly three years to complete. After approval of the initial plans by the various city and county agencies, there was an appeal to the State Board of Tax Commissioners to protest the proposed cost of the new bridge; a year-and-a-half delay ensued before tax commission approval moved the project forward. On May 29, 1929, *The Muncie Morning Star* explained the delay thusly, "After the bridge had been agreed upon originally in 1927, objections were launched against it by taxpayers and an appeal was made to the state Board of Tax Commissioners. A hearing on the remonstrance and appeal was held...but action on the bridge was delayed until less than a month ago when approval was given, with the demand that bids received be referred to the state board before final action is taken."<sup>11</sup>

It took additional sixteen months for the project to be approved by the State Board of Tax Commissioners. Earlier state laws required the tax commissioners to approve bond issues for any project costing \$50,000 or more. The appeals/remonstrance process for local tax payers included an "election" to be held to allow them to state their preference on a proposed bond issue. It only required 50 petitioners to initiate the appeals process to the tax commissioners. After the required election indicated tax payer acceptance of the bond issue, the tax commission granted approval with the stipulations

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<sup>7</sup> *County Council Minutes, 1899-32*, Delaware County Auditor's Office, Delaware County Building, Muncie, Ind., 456.

<sup>8</sup> *Ibid*, 467.

<sup>9</sup> "County Funds Getting Low," *The Muncie Morning Star*, 30 Nov 1927.

<sup>10</sup> "Bridge Project Passes Council," *The Muncie Morning Star*, 1 Dec 1927.

<sup>11</sup> "Bids Received for New Span," *The Muncie Morning Star*, 29 May 1929.

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that the cost be lowered to \$90,000 from the original estimate of \$95,000 and that the construction bids be submitted to the board before awarding the construction contract.<sup>12</sup>

At this juncture in the process, the auditor advertised for bids and Burk Construction of New Castle won the bid competition; however, the original authorization from the county commission to construct a new bridge had since expired.<sup>13</sup> Due to this oversight, a second round of bidding followed and resulted in the Burk Construction once again being selected. Another petition, presented to the county commissioners, by approximately fifty citizens from the Riverside neighborhood and Normal City, requested a representative of the Indiana State Highway Commission be appointed to supervise and inspect the contractor's work, to which the commission agreed.<sup>14</sup> The commission instructed the auditor to send a copy of the bridge plans to the state highway commission, and a formal request for an inspection was made.<sup>15</sup>

Due to the various delays, the cost of the bridge increased, slightly, due to a claim from the contractor. The Burk Construction Company requested an additional \$1500.00 to offset the "...make probable the loss of tools and equipment during sieges of high waters in the spring season."<sup>16</sup> On September 3, 1929, Burk Construction received a contract for \$85,949 for the West Washington Street Bridge, to be completed within one year or less.<sup>17</sup> Subsequently, the auditor advertised for bids to dismantle the old metal bridge and Burk Construction got that work also.<sup>18</sup>

Burk Construction Company of New Castle, Indiana was owned by Howard Franklin "Frank" Burk. His father, Thomas J. Burk, had been a principal of the Pan American Bridge Company founded in 1902. It fabricated structural steel and built bridges throughout the state and region.<sup>19</sup> Frank was a salesman for the Pan American Bridge Company before beginning his own business prior to 1915.<sup>20</sup> The Burk Construction Company built bridges for county and state highways, as well as a number

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<sup>12</sup> *Laws of the State of Indiana – 1919*, Section 201 – Taxation – Bond Issues, How Authorized, 317.

<sup>13</sup> *Commissioner's Record* 36, 410-11.

<sup>14</sup> *Ibid.*, 417-27; "Contract is Let for New Bridge," *The Muncie Sunday Star*, 1 September 1929.

<sup>15</sup> *Commissioner's Record* 36, 433.

<sup>16</sup> "Contract is Let for New Bridge," *The Muncie Sunday Star* 1 September 1929.

<sup>17</sup> *Commissioner's Record* 36, 429-30.

<sup>18</sup> *Ibid.*, 476-8.

<sup>19</sup> Herbert L. Heller, *Historic Henry County, 1880- early 1940s* (New Castle, IN: Courier-Times, Inc., 1982), 255; "T.J. Burk Died This Morning," *New Castle Daily Times*, 31 December 1917.

<sup>20</sup> W.A. Dale and Walter F. Wilkinson, *Directory of the City of New Castle, Indiana, 1915* (New Castle, IN: Dale Printing Co., 1915), 29, 210; Heller, 257.

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of other structures including commercial buildings and apartment houses in New Castle. Frank Burk retired several years before his death in 1946.<sup>21</sup>

Although state law permitted the submission of alternate plans for the West Washington Street Bridge, the commission accepted the county plan drafted by its engineer. Burk's experience performing other county work surely swayed the award of the contract because other less costly proposals/alternate plans failed the commission's review process.

Armintrout's design for the West Washington Street Bridge was apparently influenced by the work of Edwin Thacher. Thacher was born in 1836 in Lawrence County, New York. Although the son of a doctor, Thacher studied engineering and received his first practical experience building military bridges during the Civil War. As an engineer, Thacher's tasks required the solution of many complex mathematical calculations, which may be the reason he invented and patented a cylindrical slide rule in 1881. Thacher experimented with many variations of metal bridge truss designs (determined to be too complex and therefore not economical) but his design of a reinforcing system for concrete bridges is his lasting legacy. Thacher's patented system "consisted of two tiers of longitudinally-placed metal bars, one situated above the lower edge of the arch ring and the other situated under the upper edge." In some cases, Thacher, and his predecessors, used radial rods or stirrups to join the upper and lower longitudinal reinforcing.<sup>22</sup>

Referring to the design of the West Washington Street Bridge, *The Muncie Sunday Star* on September 1, 1929 stated, "The new bridge will include four spans or arches of 71 feet in length each. It will be 40 feet in width, affording a 30-foot roadway, with 5-foot sidewalks on each side. Curb approaches on each end will be 30 feet long; all facings will be finished smooth, with panels 'brush hammered' giving them a mottled effect. The center line ...of the bridge will be approximately 30 feet north of the center line of the old metal bridge, and the Meeks avenue end ... center line ...will be approximately 10 feet north of the old bridge. The end abutments will make the new bridge 310 feet long."<sup>23</sup>

Construction began on the West Washington Street Bridge on September 3, 1929. The contract required work to be completed within nine months. The bridge was

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<sup>21</sup> "Frank Burk, 72, Is Dead; Was Well Known Builder," *New Castle Courier Times*, 8 February 1946.

<sup>22</sup> Cooper, *Artistry and Ingenuity*, 40; [www.counton.org/museum/links/txbridge.htm](http://www.counton.org/museum/links/txbridge.htm).

<sup>23</sup> "Contract is Let for New Bridge," *The Muncie Sunday Star*, 1 September 1929.

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completed in 1930, but the commissioner's record makes no reference to it until the following year, when the record notes the bridge's completion on February 14, 1931.<sup>24</sup>

The West Washington Street Bridge is significant for its association with the development and growth of Muncie during the automobile age as well as its engineering. It is an example of an early twentieth century, reinforced concrete, filled-spandrel arch bridge that demonstrates two engineering innovations of the period; the use of the Thacher system of reinforcing and the application of elastic theory in the construction of concrete reinforced structures by extending reinforcing into the piers and likely the abutments of the bridge. The restored West Washington Street Bridge maintains a significant degree of integrity, appearing much as it did when completed in 1930.

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<sup>24</sup> *Ibid*; *Commissioner's Record* 36, 499.

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**Section 9 – Bibliography**

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**National Park Service**

**National Register of Historic Places**  
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**Section 10 – Geographical Data**

**Boundary Description:**

From a start point on the east bank of the White River 30 feet north and 20 feet east of the end of the north railing; proceed south across West Washington Street to a point 20 feet east and 30 feet south of the east end of the south railing; turn west and proceed across the White River to a point 20 feet west and 30 feet south of the west end of the south railing; turn north and proceed across West Washington Street to a point 20 feet west and 30 feet north of the west end of the north railing; turn east and proceed across the White River to close on the start point on its east bank.

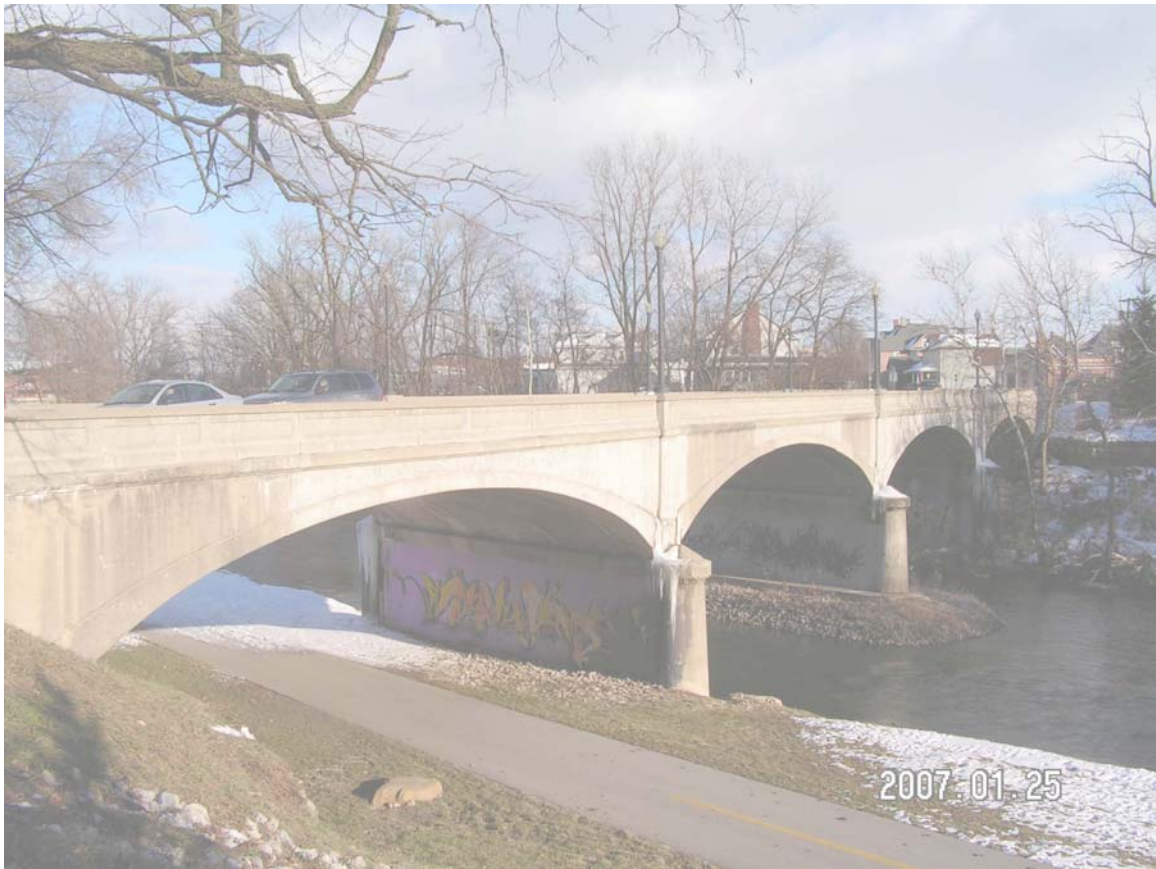
**Boundary Justification:**

The boundary as described includes the abutments, piers, and spans of the bridge and its immediate environs.



## Photograph Directory – Delaware County Bridge #503

1. Streetscape of the bridge looking northwest.
2. View of the bridge showing all spans and the two piers; looking northeast.
3. Portion of original plan showing the reinforcing system in the arch rings and the extension of the reinforcing into the piers.
4. Portion of the original plan showing the skew of the bridge superstructure in relation to the placement of the piers of the bridge.
5. View of a typical pier footing and the cutwater of the pier; looking east.
6. View of the coping around the top of the pier at the springline; the ice marks the drains for the deck above; looking southeast.
7. View showing the relationship of a typical pilaster, the haunch of an arch ring, and its relationship to an abutment; looking southeast.
8. View looking up at the crown of an arch ring, the coping below the railing, and detailing of the railing surface and cap.
9. View of a typical light standard; looking southeast.
10. View of a typical relationship between a pier, the pilasters, the bridge railing, and the light standards; looking southeast.
11. Detailed view of the top of a pilaster and the bush-hammering detail; looking up.
12. View of some minor spalling on the coping below the exterior surface of a railing; looking northeast.
13. Detailed view of an interior surface of a railing showing the exposed aggregate resulting from the use of a bush hammer; looking north.
14. Plaque showing county officials, and contractor at the time of original construction and the contractor for the restoration, looking north.
15. Plaque showing the members of the county council at time of construction; looking north.
16. Plaque showing the restoration award from 1997; looking north.
17. View from below a wing wall of an approach demonstrating the curvature of the railing; looking west.



West Washington Street Bridge, Photograph #2

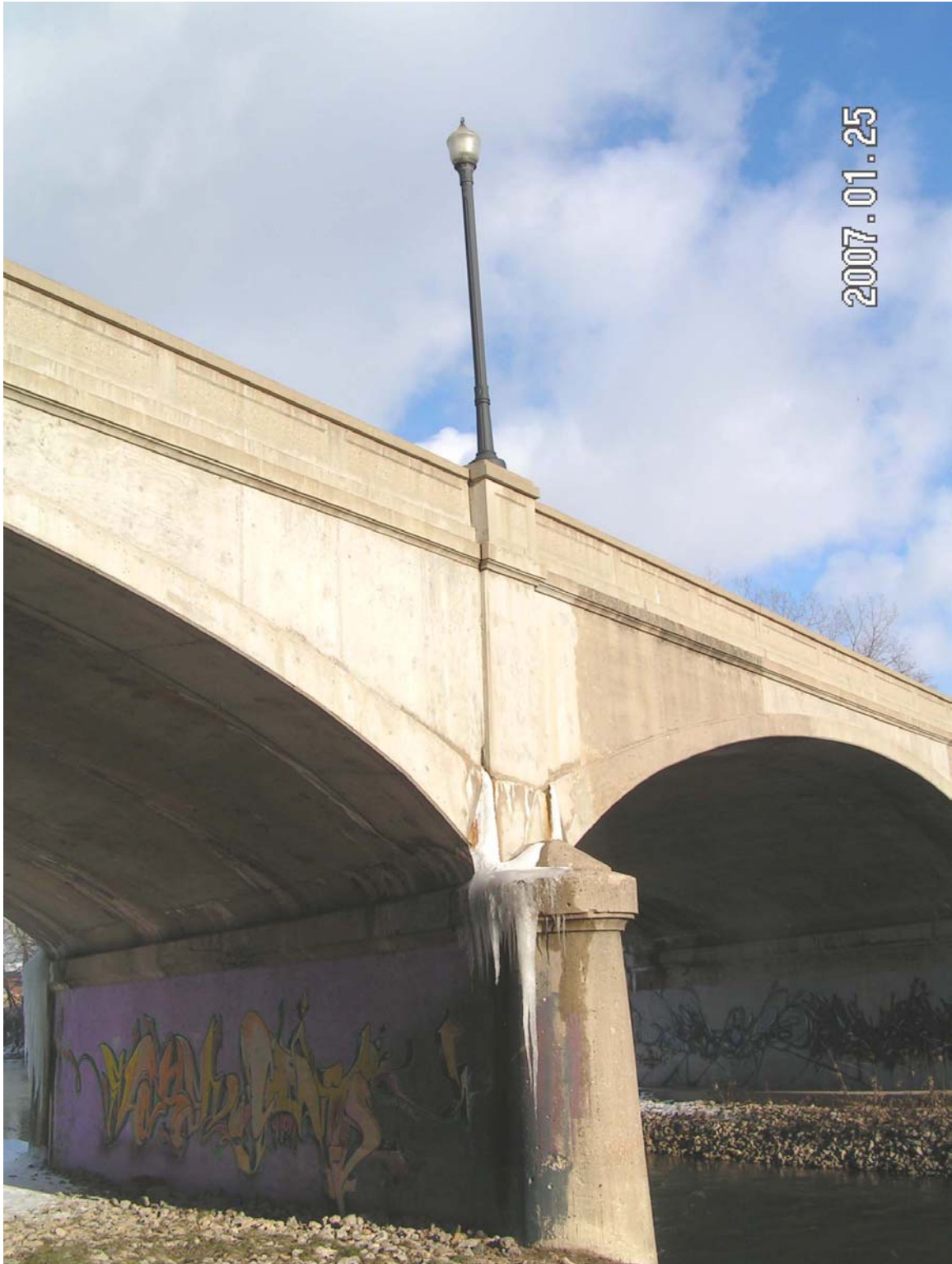


West Washington Street Bridge, Photograph #6



West Washington Street Bridge, Photograph #7





West Washington Street Bridge, Photograph #10